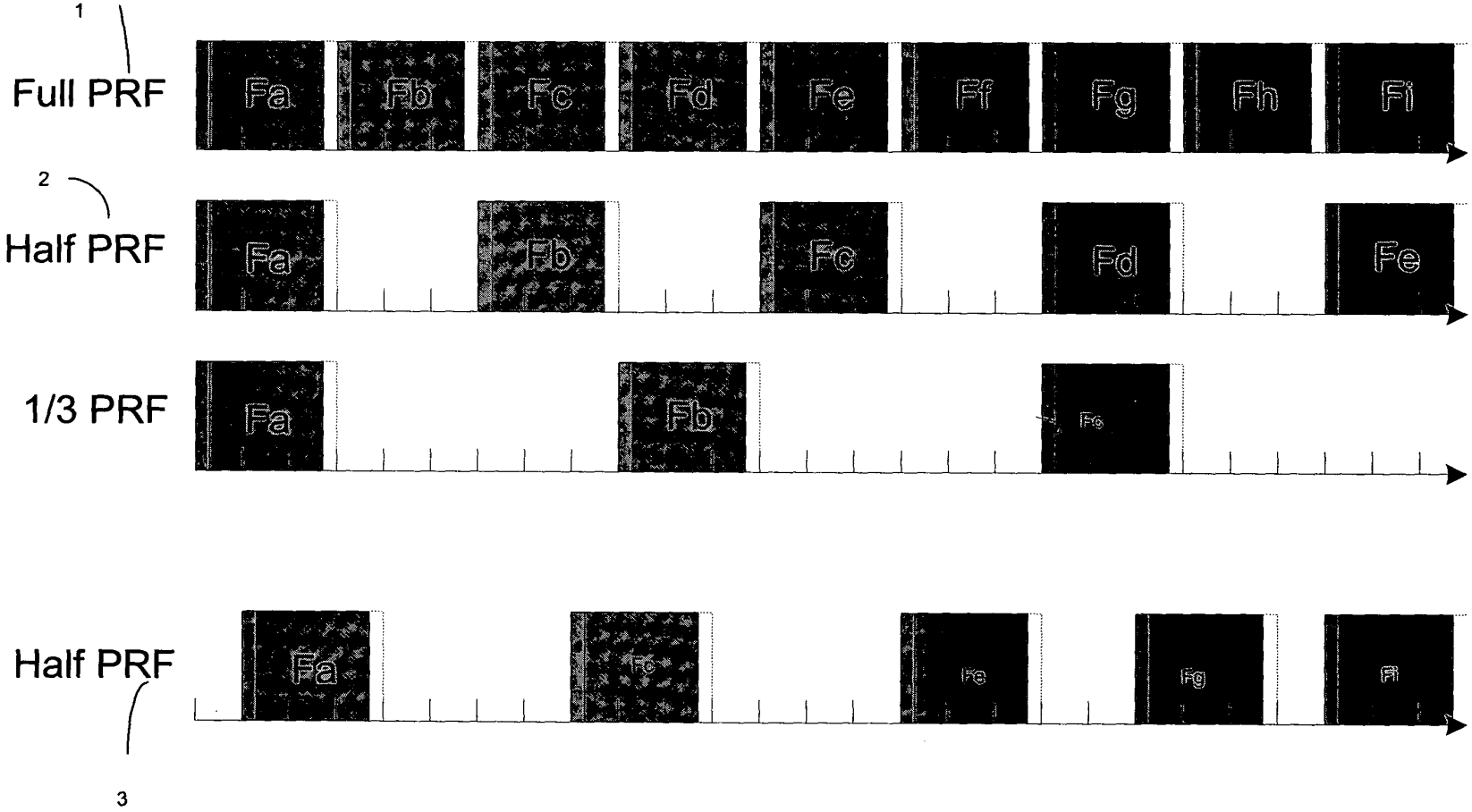
1
Full PRF
Fa
Fb
Fc
Fd
Fe
Ff
Fg
Fh
Fi
2
Half PRF
Fa
Fb
Fc
Fd
Fe
1/3 PRF
Fa
Fb
Fe
Half PRF
Fa
Fe
Fg
Fi
3

Fig. 1

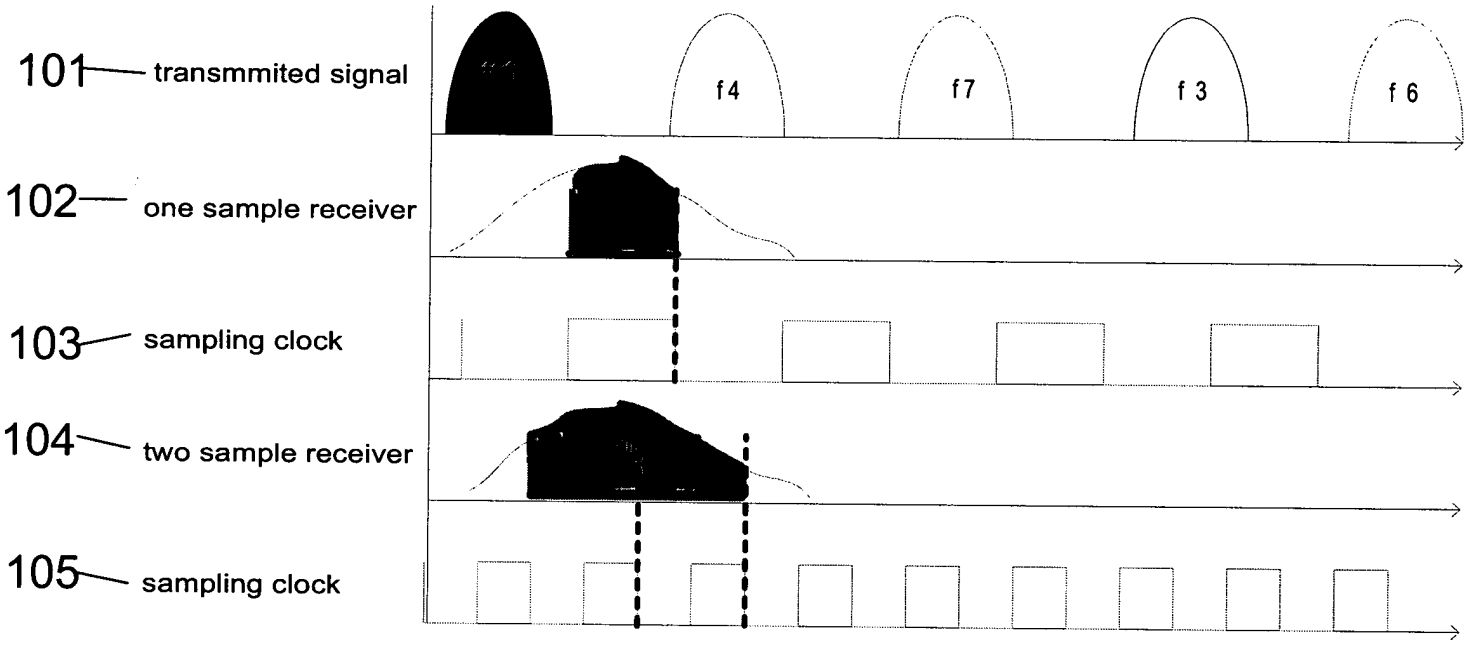
101
transmmited signal
f4
f7
f 3
f 6
102
one sample receiver
103
sampling clock
104
two sample receiver
105
sampling clock

Fig. 1A

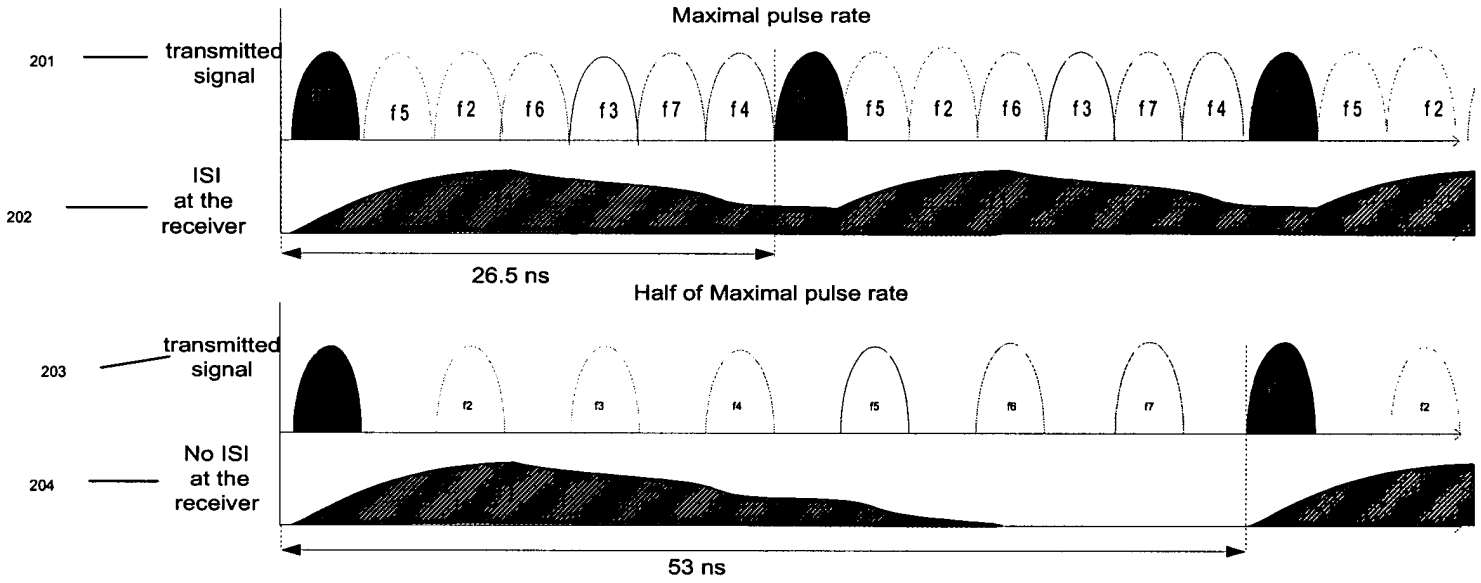
Maximal pulse rate
201
transmitted signal
f5
f2
f6
f3
f7
f4
f5
f2
f6
f3
f7
f4
f5
f2
202
ISI at the receiver
26.5 ns
Half of Maximal pulse rate
203
transmitted signal
f2
f3
f4
f5
f6
f7
f2
204
No ISI at the receiver
53 ns

Fig. 2

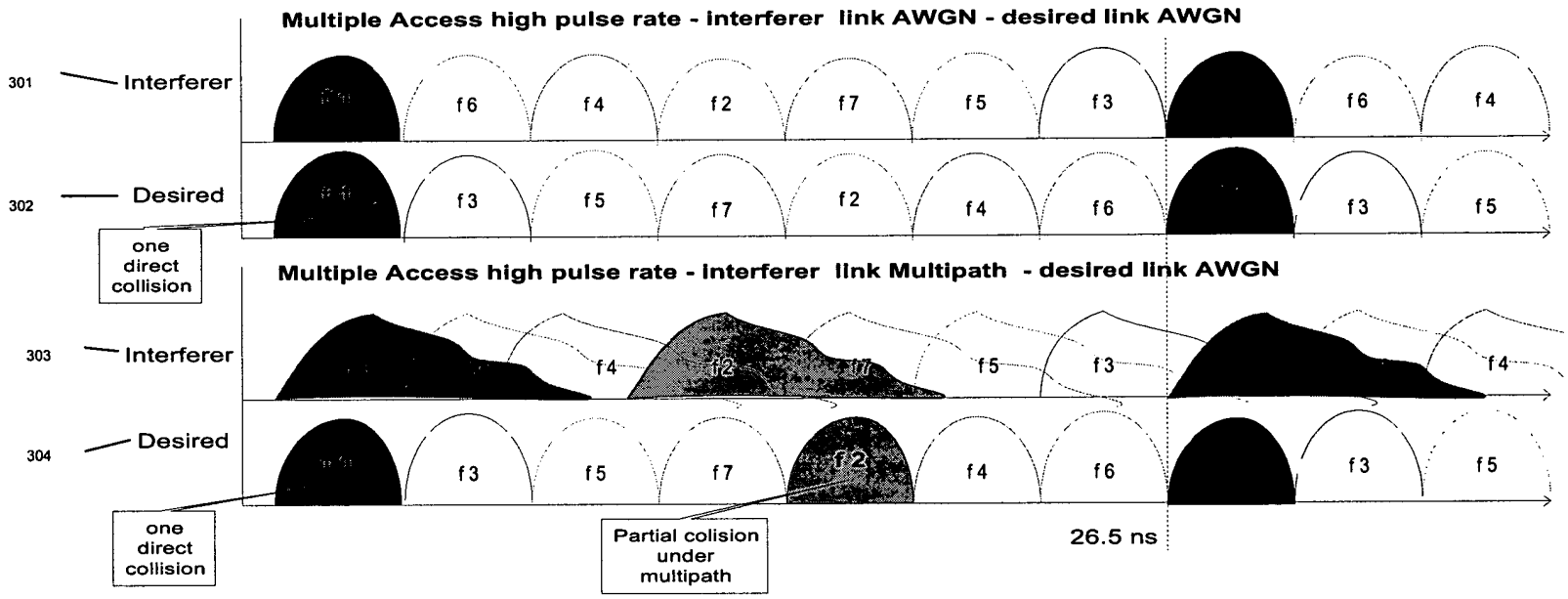
Multiple Access high pulse rate - interferer link AWGN - desired link AWGN
301
Interferer
f6
f4
f2
f7
f5
f3
f6
f4
302
Desired
f3
f5
f7
f2
f4
f6
f3
f5
one direct collision
Multiple Access high pulse rate - interferer link Multipath - desired link AWGN
303
Interferer
f4
f2
f7
f5
f3
f4
304
Desired
f3
f5
f7
f2
f4
f6
f3
f5
one direct collision
Partial colision under multipath
26.5 ns

Fig. 3

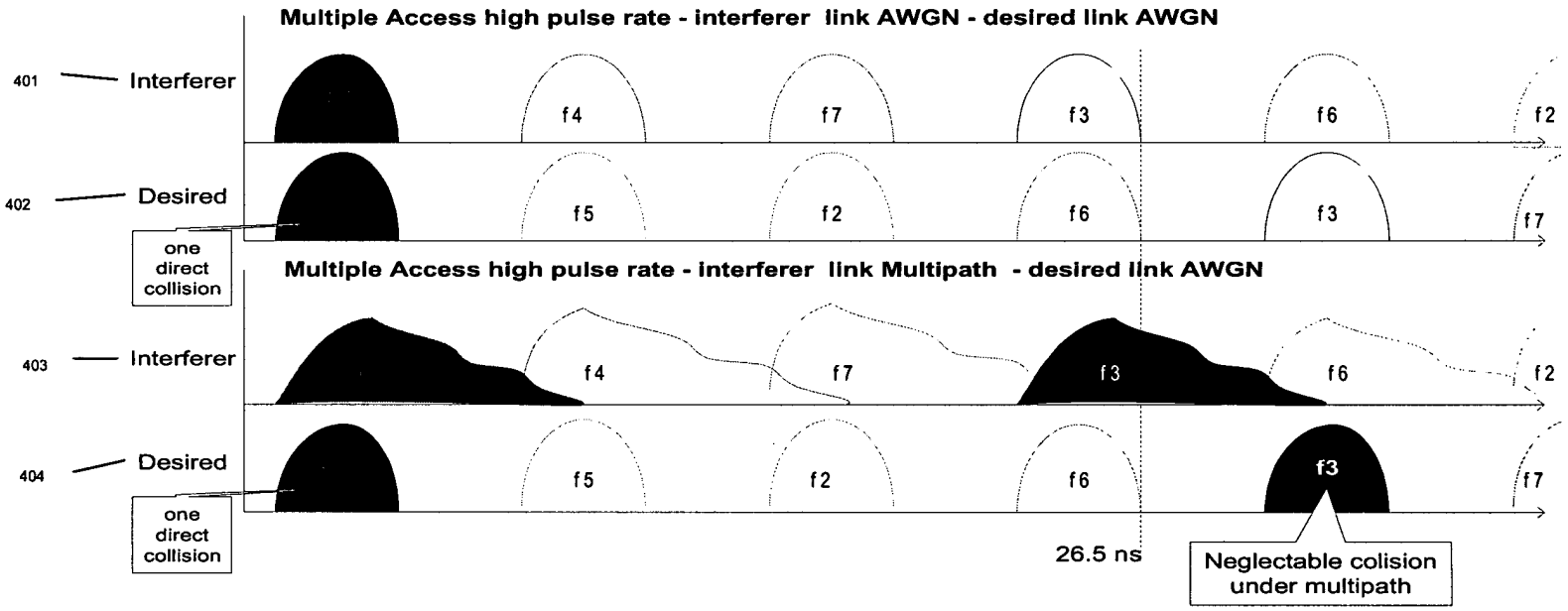
Multiple Access high pulse rate - interferer link AWGN - desired link AWGN
401
Interferer
f4
f7
f3
f6
f2
402
Desired
f5
f2
f6
f3
f7
one direct collision
Multiple Access high pulse rate - interferer link Multipath - desired link AWGN
403
Interferer
f4
f7
f3
f6
f2
404
Desired
f5
f2
f6
f3
f7
one direct collision
26.5 ns
Neglectable colision under multipath

Fig. 4

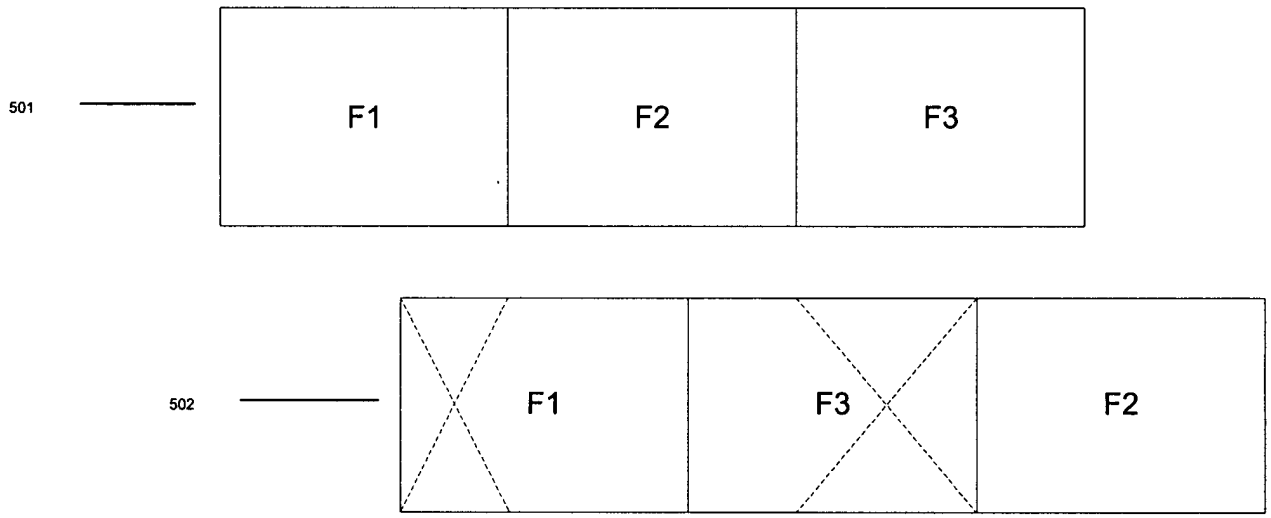

Fig. 5

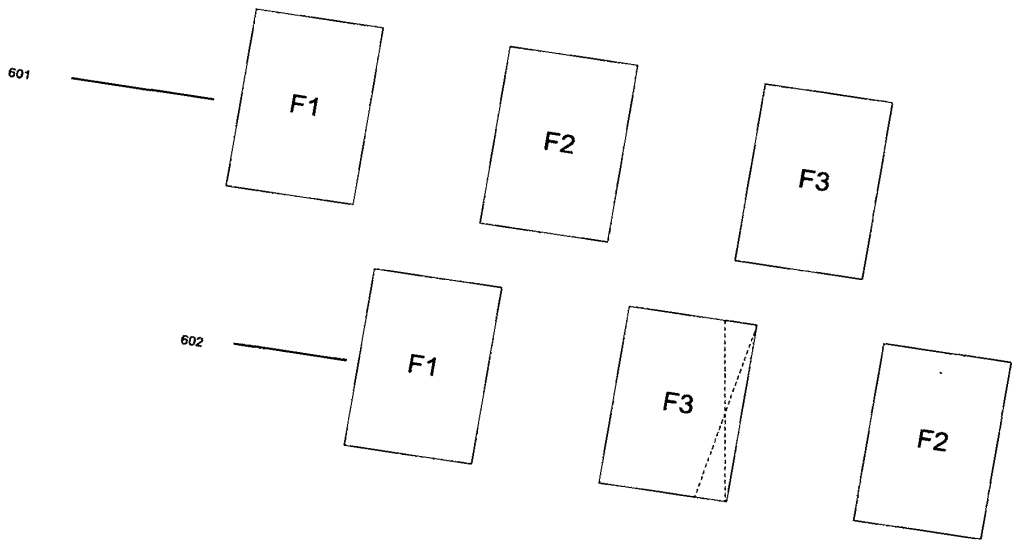

Fig. 6

S1	1	2	3	4	5	6	7
S2	1	3	5	7	2	4	6
S3	1	4	7	3	6	2	5
S4	1	5	2	6	3	7	4
S5	1	6	4	2	7	5	3
S6	1	7	6	5	4	3	2

Fig. 7

Full Rate	1	3	5	7	2	4	6	1	3	5	7	2	4	6	1	3	5	7	2	4	6
Half Rate	1		5		2		6		3		7		4		1		5		2		6
Low Rate	1			7			6			5			4			3			2		

Fig. 8

Full Rate	1	3			2	4		1	3			2	4		1	3			2	4	
Half Rate	1				2				3				4		1				2		
Low Rate	1												4			3			2		

Fig. 9

Parallel Transmission	Upper Band	8	10	12	14	9	11	3	8	10	12	14	9	11	3	8	10	12	14	9	11	3
	Lower Band	1	3	5	7	2	4	6	1	3	5	7	2	4	6	1	3	5	7	2	4	6

Fig. 10

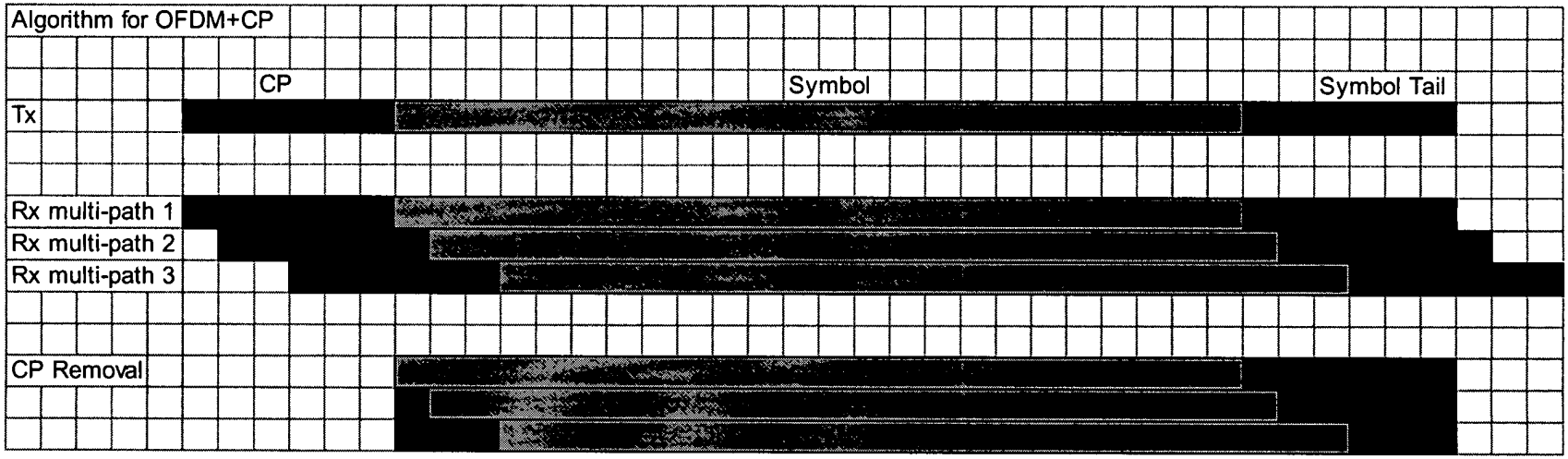
Algorithm for OFDM+CP
CP
Symbol
Symbol Tail
Tx
Rx multi-path 1
Rx multi-path 2
Rx multi-path 3
CP Removal

Fig. 11

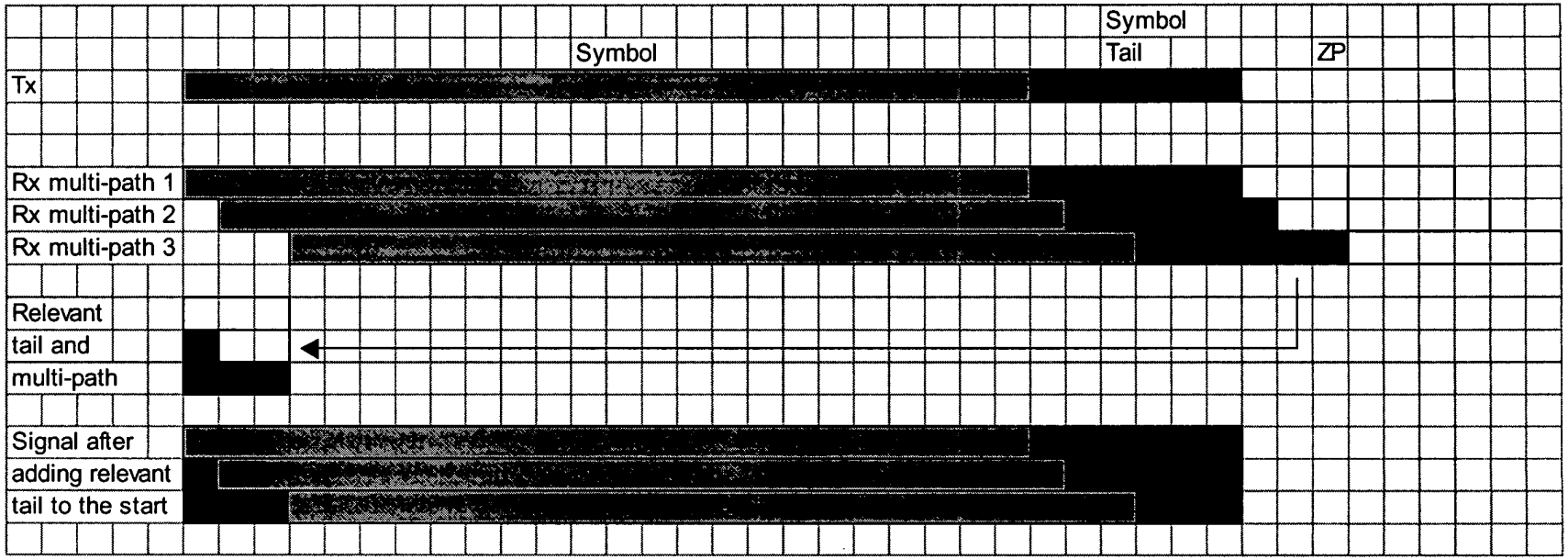
Symbol
Symbol
Tail
ZP
Tx
Rx multi-path 1
Rx multi-path 2
Rx multi-path 3
Relevant
tail and
multi-path
Signal after
adding relevant
tail to the start

Fig. 12

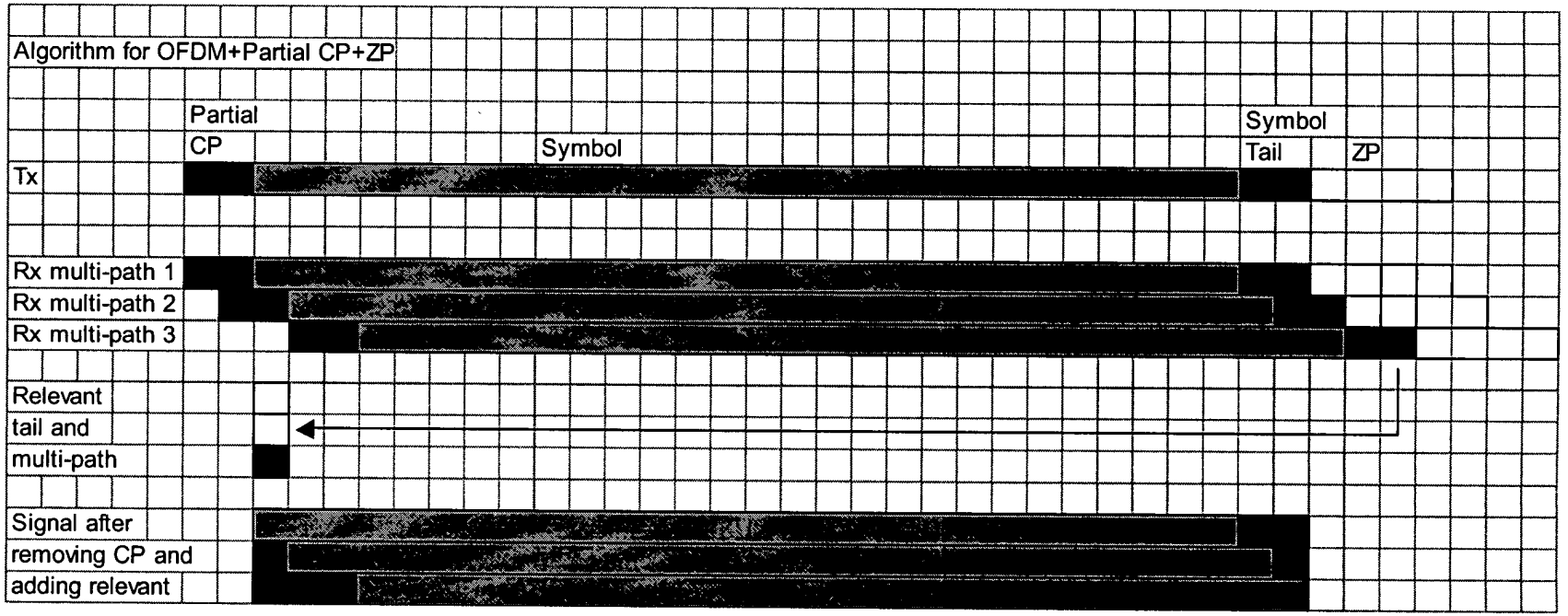
Algorithm for OFDM+Partial CP+ZP
Partial
CP
Symbol
Symbol
Tail
ZP
Tx
Rx multi-path 1
Rx multi-path 2
Rx multi-path 3
Relevant
tail and
multi-path
Signal after
removing CP and
adding relevant

Fig. 13